Tumours of the nasopharynx

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Benign There are two main types of benign tumours of the nasophar ynx: the angiofibroma and the antrochoanal polyp. Both are rare. Angiofibroma This tumour is confined to young male patients most commonly between the ages of 8 and 20 years. It usually causes progressive nasal obstruction, recurrent severe epistaxis, purulent rhinorrhoea and occasionally loss of vision because of compression of the optic nerve by superior extension of the tumour through the skull base. Although the tumour is rare, these symptoms in a young male patient should always arouse suspicion. The tumour is more common in northern India, although the reasons for this are unknown. Clinical examina tion typically shows a mass in the nasal cavity or nasopharynx, but CT scanning best demonstrates the extent of the tumour and any associated bony erosion. MRI scanning defines the soft-tissue extent and, with these two modalities, combined with the history and clinical e xamination, a diagnosis can safely be arrived at. Angiography and embolisation are usually performed 24–48 hours prior to surgery to minimise intra- operative bleeding. Biopsy should be avoided unless clinical and radiological examinations are not diagnostic because of the risk of bleeding. Surgical resection requires adequate exposure through either a midfacial degloving approach or lateral rhinotomy (Figures 52.20 and 52.21). Both allow ligation of the feeding maxillary artery . More r ecently , endoscopic resection has been used for smaller lesions. Sir St Clair Thomson , 1859–1943, British surgeon and professor of laryngology . George Walter Caldwell , 1834–1918, otolaryngologist, who practised successively in New Y ork, San Francisco and Los Angeles, USA, devised this operation for treating suppuration in the maxillary antrum in 1893. Henri Luc , 1855–1925, otolaryngologist, Paris, France, described his operation in 1889. - Antrochoanal polyp This relatively uncommon lesion is a benign mucosal polyp - that arises in the maxillary antrum and prolapses into the nasal cavity , where it expands backwards into the nasopharynx and occasionally into the oropharynx (Figures 52.22 and 52.23). It may mimic an angiofibroma, from which it is distinguished by its avascularity and pale colour, as well as its site of origin, which is determined on endoscopic examination and imaging. It requires complete removal via an endoscopic approach through the middle meatus of the maxillary sinus or, rarely , via an open Caldwell–Luc approach. Malignant Nasopharyngeal carcinoma Nasopharyngeal carcinoma has a marked geographically variable incidence. There is classically a tumour involving the nasopharynx that may extend into the nasal cavity , oral

Figure 52.20 Intraoperative photograph showing exposure during a midfacial degloving approach. Figure 52.21 Intraoperative photograph showing an incision in lateral rhinotomy.

cavity , parapharyngeal space, bones and sinuses or brain. It has a male-to-female ratio of 3:1. In most parts of the world, it is rare with an annual incidence of 1 case per 100 /uni00A0 000 population; however, among southern Chinese populations the rate is 30–50 cases per 100 /uni00A0 000 population. The aetiol ogy of nasopharyngeal carcinoma is multifactorial. Genetic susceptibility , tobacco smoking, early infection by EBV and consumption of traditional diets,

particularly salted fish, are known to contribute. Aetiological factors in nasopharyngeal carcinoma /uni25CF /uni25CF /uni25CF /uni25CF The majority of nasopharyngeal tumours are undi ff er - entiated with a characteristic morphology , constituting over 90% of nasopharyngeal malignancy in endemic areas. Rare epithelial tumours are adenocarcinoma and adenoid cystic carcinoma, which arise from minor salivary glands. B- and T -cell lymphomas also occur in the nasopharynx and should not be confused with the more common undi ff erentiated carci - noma. Nasopharyngeal carcinoma has a bimodal distribution with an increased incidence in teenagers and young adults and then again in the 50- to 60-year-old age group . Symptoms are closely related to the position of the tumour in the nasopharynx and the degree of regional and/or distant spread. Early symptoms are often minimal and ma y be ignored by both patient and doctor. Approximately 50% of patients will present with a malignant node or nodes in the neck, indicating an advanced tumour. While investigation of the lymph node will involve fine-needle aspiration or a biopsy , such a clinical presentation mandates an immediate thorough examination of the nasopharynx. In about 5% of patients, the nasopharynx may look normal or minimally asymmetrical but contains submucosal nasopharyngeal carcinoma. MRI or CT of the head and neck should be performed as part of the diagnostic work-up; even if a nasopharyngeal mass is not iden - tified clinically or radiologically , a biopsy of the nasopharynx, targeting the fossa of Rosenmüller, will reveal the site of the primary tumour in patients with a malignant neck lump that shows EBV positivity . In contrast, nasal complaints (obstruc - tion with/without rhinorrhoea) occur in one-thir d of patients and aural symptoms of unilateral deafness as a consequence of Eustachian tube obstruction and secretory otitis media occur in approximately 20% of patients. Neurological complications with cranial nerve palsies as a result of disease in the skull base occur rela tively late in the disease, but are a poor prognostic sign, as is trismus resulting from tumour involvement of the pterygoid musculature. Summary box 52.5 Nasopharyngeal carcinoma: main presenting com - plaints /uni25CF /uni25CF /uni25CF - /uni25CF /uni25CF /uni25CF /uni25CF

Figure 52.22 Intraoral view showing a /f_l eshy polyp hanging in the oropharynx. Figure 52.23 Axial computed tomogram of an antrochoanal polyp (as seen in Figure 52.22), with an opaque maxillary antrum and a mass in the nasal cavity and nasopharynx. Genetic (e.g. Cantonese population) Infective (e.g. EBV) Environmental (e.g. salted /f_i sh) Tobacco smoking Clinical features. Regional Cervical lymphadenopathy Local Hearing loss (unilateral serous otitis media), otalgia Nasal obstruction, bloody discharge, epistaxis Cranial nerve palsies, especially III–VI then IX–XII Trismus

rigid nasendoscope and biopsy under topical or general anaes thesia. Serological investigation for EBV-associated antigenic markers in combination with the clinical and histological examination is valuable for the early detection of disease. Highly sensitive assays for antiviral antibodies together with virus-associated serological marker s are useful in early detec tion and in post-treatment surveillance. Immunoglobulin (Ig) A antiviral capsid antigen antibody and early antigen antibody have been evaluated in mass surveys in southern China and have been found to be an e xcellent screening method for early detection of nasopharyngeal carcinoma in high-risk groups. This is essential for staging and to determine the extent of disease. The imaging of choice is MRI, which allows for assessment of brain parenchyma, cavernous sin us and the closely associated cranial foramina and for treatment planning. CT or PET-CT of the head, neck and chest has a major role in planning radiotherapy and assessing the response to treatment, diagnosing recurrence and detecting complications. The primary treatment of nasopharyngeal carcinoma is non-surgical as it is highly radiosensitive and depends on the stage of the disease. Intensity-modulated and cisplatin-

based chemotherapy with concurrent radiation - therapy for stages III and IV . Surgery is reserved for local recur - rence that would require a nasopharyngectomy , which can be performed either transorally with a robot, transnasally with a in rigid telescope or via an open approach; regional recurrence the neck is managed by a neck dissection. Given the complexity - of the anatomy and proximity of vital neurovascular struc - tures, ongoing trials with proton beam therapy at selected centres around the world have demonstrated promising results or early disease, 5-year disease-free with lesser adverse e ﬀ ects. F survival rates of more than 75% are common; however, in advanced disease the results are less good, with 5-year disease- free survival rates of 30–50%.

Imaging. Treatment. Figure 52.24 Acute follicular tonsillitis. Figure 52.25 Quinsy (peritonsillar abscess).

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